217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT
RENEWAL

PERMITTEE

National Manufacturing Co.
Attn: Jackie Molina
One First Avenue
Sterling, Illinois 61081

Application No.: 73021262 I.D. No.: 195050ABP
Applicant's Designation: PLATER4979 Date Received: October 29, 2004
Subject: Metal Parts Manufacturing and Finishing
Date Issued: April 8, 2005 Expiration Date: April 8, 2010
Location: One First Avenue, Sterling

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of bronze electroplating operations and associated equipment, zinc plating operations and associated equipment, heat treat oven for zinc-plated components, two (2) paint hook burn-off ovens each controlled by afterburner, four (4) coatings lines, die casting operations, boiler, and tumbler controlled by filter pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1a. This federally enforceable state operating permit is issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., any single HAP to less than 10 tons/year and total HAPs to less than 25 tons/year). As a result the source is excluded from the requirement to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.

b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.

c. This permit supersedes all operating permits issued for this location.

2. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish in rule which would require the Permittee to obtain a CAAPP permit from the Illinois EPA. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a CAAPP permit from the Illinois EPA.

3. This permit is issued based on the Permittee not having to comply with the limitations of 35 Ill. Adm. Code 215.204, because of the exemption in 35 Ill. Adm. Code 215.206(a).

4. Emissions of VOM resulting from the usage of coatings, cleanup solvents, and lacquer shall not exceed the following limits:

Material	Combined HAP and VOM Emissions (Tons/Month)	(Tons/Year)
Coatings	1.3	12.2
Cleanup Solvents	0.6	5.4
Lacquer	0.8	7.3
Total:	2.7	24.9

These limits are based on the maximum usage of coatings, cleanup solvents, and lacquers, and the compliance procedures described in Condition 5. Compliance with these annual VOM limits shall be determined from a running total of 12 months of data.

5. The VOM and HAP content of lacquer recovered and shipped offsite shall be determined by USEPA Method 24. Refer to 40 CFR 60, Appendix A for the test procedure. A representative sample shall be tested each time material is shipped offsite.

6. The emission limitations in Conditions 2 and 4 shall be determined by the recordkeeping requirements in Condition 12 and by the emission factors and formulas listed below:

   a. To determine VOM and HAP emissions resulting from the usage of coatings, the following formula shall be used:

$$Ec = \sum_{i=1}^{n} Uc_i \, Cc_i$$

   Where:

   Ec = Emissions resulting from the usage of coatings (tons).

   i = Subscript denoting a specific coating applied.

   n = Total number of coatings applied.

   Uc_i = Usage of each coating applied (tons).

   Cc_i = The VOM or HAP content of each coating as applied (% weight). This value shall be determined from manufacturers data.

   b. To determine VOM emissions resulting from the usage of cleanup solvents, the following formula shall be used:

$$Es = \sum_{i=1}^{n} Us_i \, Cs_i$$

Where:

Es = Emissions resulting from the usage of solvents (tons).

i = Subscript denoting a specific solvent.

n = Total number of solvents used.

Us_i = Usage of each solvent (tons).

Cs_i = The VOM or HAP content of each solvent (% weight). This value shall be determined from manufacturers data.

c. To determine VOM emissions resulting from the usage of lacquer, the following formula shall be used:

$$El = \sum_{i=1}^{n} Ul_i \, Cl_i - \sum_{j=1}^{m} Rl_i \, Cr_i$$

Where:

El = Emissions resulting from the usage of lacquer (tons).

i = Subscript denoting a specific lacquer.

n = Total number of lacquers used.

Ul_i = Usage of each lacquer (tons).

Cl_i = The VOM or HAP content of each lacquer (% weight).

j = Subscript denoting a specific lacquer recovered and shipped offsite.

m = Total number of lacquers recovered and shipped offsite.

Rl_j = Amount of each lacquer recovered and shipped offsite.

Cr_i = VOM or HAP content of each lacquer recovered and shipped offsite, as determined by the testing procedure described in Condition 5 (% weight).

7. The Permittee shall keep, store, and dispose all VOM containing materials in closed containers.

8. This permit is issued based on negligible emissions of particulate matter from the following units:

Process Tanks Used for Bronze Electroplating Operations
Process Tanks Used for Zinc Plating Operations
Heat Treat Oven for Zinc-Plated Components

Two (2) Paint Hook Burn-Off Ovens Each Controlled by Afterburner
Each Unit Used for Die Casting Operations
Boiler
Tumbler Controlled by Filter

For this purpose, the emissions shall not exceed nominal emission rates of 0.2 lb/hour and 0.88 tons/year.

9. Pursuant to 35 Ill. Adm. Code 214.303, emissions of sulfuric acid from any process shall not exceed 0.1 lb/hour.

10. Emissions and operations of the following natural gas combustion equipment shall not exceed the following limits:

Item of Equipment	Maximum Firing Rate (mmBtu/Hr)	NO_x Emissions (Lb/Hr)	NO_x Emissions (Tons/Yr)	CO Emissions (Lb/Hr)	CO Emissions (Tons/Yr)
Boiler	15.0	1.48	6.49	1.24	5.43
Heat Treat Oven for Zinc Plated Components	0.4	0.04	0.18	0.04	0.18

These limits are based on the maximum firing rate of the fuel combustion equipment and AP-42 emission factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

11. Compliance with Condition 10 is assumed to be achieved by the normal work practices and maintenance activities inherent in operation of the natural gas combustion equipment.

12a. Material insulated with polyvinyl chloride or asbestos, or scrap containing the fuming metals tin, zinc, or lead shall not be charged to either of the paint hook burn-off ovens controlled by afterburner.

b. The afterburner shall be heated to an operating temperature of 1400°F before charging and this temperature shall be maintained during operation.

c. The oven shall be equipped with afterburner temperature indicators.

13. The Permittee shall maintain monthly records of the following items:

a. Usage of coatings (tons/month and tons/year).

b. VOM and HAP content of all coatings used (% weight).

c. Emissions of VOM resulting from coatings usage (tons/month and tons/year).

d. Usage of cleanup solvents (tons/month and tons/year).

e. VOM and HAP content of all cleanup solvents used (% weight).

f. Emissions of VOM resulting from cleanup solvent usage (tons/month and tons/year).

g. Usage of lacquer (tons/month and tons/year).

h. VOM and HAP content of all lacquers used (% weight).

i. Amount of lacquer recovered and shipped offsite (tons/month and tons/year).

j. VOM and HAP content of any lacquers recovered and shipped offsite (% weight).

k. Emissions of VOM resulting from lacquer usage (tons/month and tons/year).

l. Emissions of each HAP (tons/month and tons/year).

m. Emissions of total HAPs (tons/month and tons/year).

14. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.

15. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

16. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
5415 North University
Peoria, Illinois 61614

17. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year: usage of all VOM containing material.

It should be noted that the following equipment is exempt from state permitting requirements:

Indirect Fuel Combustion Emission Sources Less than 10 mmBtu/hr	35 Ill. Adm. Code 201.146(d)
Drying Ovens and Parts Washers Less than 10 mmBtu/hr	35 Ill. Adm. Code 201.146(fff)
Equipment Used for Buffing, Surface Grinding, or Sawing Plastic, Metal, or Wood Controlled by Filters	35 Ill. Adm. Code 201.146(aa)

It should also be noted that this permit has been revised to show the removal of the following equipment:

Nickel electroplating operations and associated equipment
Brass electroplating operations and associated equipment
Decorative chrome electroplating operations and associated equipment
Copper plating operations and associated equipment

If you have any questions on this, please call George Kennedy at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:GMK:psj

cc: Illinois EPA, FOS Region 2
Illinois EPA, Compliance Section
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from metal parts manufacturing plant operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. The resulting maximum emissions are below the levels, e.g., 10 tons per year of any single HAP or 25 tons per year of all HAPs combined at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled and control measures are more effective than required in this permit.

	E M I S S I O N S (Tons/Year)				
Equipment/Process	PM	VOM	NO_x	CO	Combined HAP
Coatings, Cleanup Solvents, Lacquer		24.9			24.9
Boiler, Heat Treat Oven			6.67	5.61	
Negligible Units	0.88				
Totals:	0.88	24.9	6.67	5.61	24.9

GMK:psj